

\$1.50

ENERGY = MC^2 ...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

ISSN: 0740-2759

OCTOBER 1985





COMPUTER PRODUCT CENTER

220 M.A.C. Ave.
University Mall
East Lansing, MI 48823
(517) 332-8082



Open M-F 9am-6pm.

Disks:

Bonus 5.25"	1S/2D	\$ 9.99
	2S/2D	\$13.00
Datalife 5.25"	1S/2D	\$19.00
	1S/2D	\$23.00
Maxell 5.25"	IBM-AT	\$52.00

Epson Ribbons

MX/RX/FX-80	\$ 3.50
MX/RX/FX-100	\$ 7.00
LX-80	\$ 4.50
LQ-1500	\$13.99

Paper + Labels

Clean Edge	2600 Sheets	\$27.00
Regular Edge	2400 Sheets	\$22.00
3 1/2 x 15/16	5000 Labels	\$ 12.50

Ribbons

Diablo	\$ 3.00
Qume	\$7.00
Pro/Imagewriter	\$5.85
TI-855	\$6.50
Spinwriter	\$4.25

F ORTRAN 77

MS-DOS
GREAT FOR CPS 451
DIGITAL RESEARCH
OR
MICROSOFT \$ 250.00

Printers + Misc.

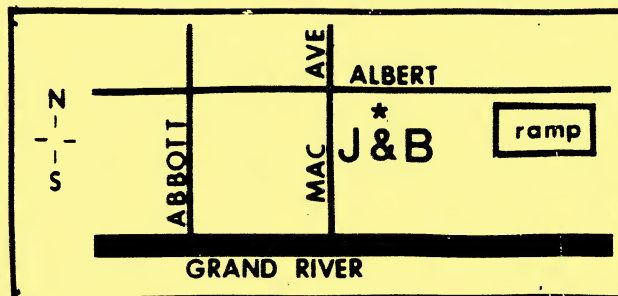
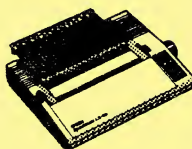
Epson LX-80	\$269.00
Comrex CR-220	\$129.95
Flip N File	\$ 19.95
Data-Case	\$ 9.95



\$14.95

Spectrum LX-80
Dot Matrix Printer

EPSON®



SEPTEMBER 1985
 SU MO TU WE TH FR SA
 1 2 3 4 5 6 7
 8 9 10 11 12 13 14
 15 16 17 18 19 20 21
 22 23 24 25 26 27 28
 29 30

CONSORTIUM CALENDAR

OCTOBER 1985

NOVEMBER 1985
 SU MO TU WE TH FR SA
 1 2
 3 4 5 6 7 8 9
 10 11 12 13 14 15 16
 17 18 19 20 21 22 23
 24 25 26 27 28 29 30

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 LACC	2 M36 EXEC LAMALUG	3 CMARC	4 CCUG	5
6	7 TI USERS GROUP	8 HEATH SIG ADM	9	10	11 DRUG	12
13 CMARC Ham Fair	14 Columbus Day	15 CHTUG ENERGY DEADLINE	16	17	18 CHAOS APPLE LUG	19
20 EPSON USERS	21 UPCC (IBM PC)	22	23 M36	24	25	26
27	28	29	30 Halloween CP/M SIG	31		

LANSING AREA COMPUTER CLUBS

ACM (Association for Computing Machinery)
 Meets: Usually 2nd Wednesday, 6:00 pm (dinner);
 7:30 pm (meeting); Quality Inn, Lansing
 Contact: Lew Crippen 377-6636 (days) 371-3179 (evenings)
 Mary Dike or Walt Davis 377-6636 (days)

Apple LUG (Lansing Users Group) (MC2)
 Meets: Third Saturday, 9:30 A.M.
 102 South Kedzie Hall, MSU, East Lansing
 Contact: P.O. Box 27144, Lansing, MI 48902
 Gary G. Martin 394-0115 after 6pm

CCUG (Greater Lansing Color Computer Users Group) (MC2)
 Meets: First Saturday, 1:00 P.M.
 East Lansing Public Library, 950 Abbott, E.L.
 Contact: P.O. Box 14114, Lansing, MI 48901
 Terry Feichtenbiner 371-1594

CHAOS (Capitol Hill Atari Owners Society) (MC2)
 Meets: Third Saturday 9:00 AM
 Foster Community Center, 200 N. Foster, Lansing
 Contact: PO Box 16132, Lansing, MI 48901
 Leo Sell (president) 393-7792

CMARC (Central Michigan Amateur Radio Club)
 Meets: 1st Friday, 8:00 pm
 American Red Cross Bldg.
 1800 E. Grand River, Lansing
 Contact: Ken Noble W8JYB 372-0994

Comp Klub of Lansing (TI Users Group)
 Meets: 2nd Tuesday, 7:00 pm
 River Front Community Bldg 501 N Cedar St, Lansing
 Contact: John Hayes 882-7860; Eugene Loyd 394-1494

The Commodore Club (of St. Johns)
 Meets: Every Tuesday night, 7-10 pm
 Contact: David Smalldon 689-5963, evenings

DECUS GLLUG (DEC Users Greater Lansing Local Users Group)
 Meets: Approximately every 2 months at a local DEC user
 Contact: C. M. Watson (secretary) 483-1111 (days)

DRUG (DEC Rainbow Users Group)
 Meets: 2nd Saturday, 11:00 am
 Institute for Family & Child Study
 Home Management House #2, MSU (next to Berkey)
 Contact: Jeffrey Weihl 353-3717 (days) 349-6967 (evenings)

Epson Users Group
 Meets: Third Monday, 7:00 pm
 Library of Michigan, 735 E. Michigan, Lansing
 Contact: Ted Bozarth 332-3710 (after 8 PM)

LACC (Lansing Area Commodore Club)
 Meets: First Wednesday, 7:00 PM
 All Saints Episcopal Church, 800 Abbott, E.L.
 Contact: PO Box 1065, East Lansing, MI 48823
 Jae Walker (president) 351-7061

LAMALUG (Lansing Area Mac and Lisa User Group)
 Meets: First week of month; different day each month
 Scofes Restaurant, 2609 S. Cedar, Lansing
 Contact: Dick McCarrick (at Computer Consignments, 394-4
 Charles Winters 787-5731; Mark Rosenberg 351-06

M36 (Mid-Michigan Microcomputer Group) (MC2)
 Meets: Third Thursday (usually), 7:30 PM
 East Lansing Public Library, 950 Abbott, E.L.
 Contact: PO Box 1302, East Lansing, MI 48823
 Warren Wolfe (president) 337-7672

Executive Meetings: First Thursday, 7:30 PM
 Beggar's Banquet, 218 Abbott, East Lansing
 M36 CHTUG (Central Mich. TRS-80 Users Group) SIG (MC2)
 Meets: Third Tuesday, 7:30 PM
 Foster Community Center, 200 N. Foster, Lansing
 Contact: Lee Hodges 669-3258

M36 CP/M SIG (MC2)
 Meets: Last Thursday, 7:30 PM
 Foster Community Center, 200 N. Foster, Lansing
 Contact: Greg Martin 484-5850 or Tim Childs 321-4072

M36 Heath/Zenith SIG (MC2)
 Meets: 2nd Wednesday, 7:30 pm
 All Saints Episcopal Church, 800 Abbott, E.L.
 Contact: Tom Trana, PO Box 829, East Lansing MI 48823

M36 Osborne SIG (MC2)
 Meets: Last Saturday, 1:00 pm
 (In a member's home; call for directions.)
 Contact: Larry Tirone 484-3921

MSU MUG (MSU & Capitol Area Macintosh Users Group)
 Meets: During MSU school year - not again until Fall
 Contact: John Sykes 332-6720

U.P.C.O. (Users' Personal Computer Organization--IBM PC group)
 Meets: 4th Tuesday, 7:30 PM
 Agricultural Engineering Bldg., MSU
 Contact: Skip Osterhus 321-3425

Clubs designated (MC2) are members of the Michigan Computer Consortium.

This listing is as accurate as the information we receive. To list an event or update information, contact Joe Werner at 337-7415 (evenings), or on the local BBSs BabbleNet or LSJ Access, or via RCI Mail (JWERNER).

ABOUT ENERGY

ENERGY (ISSN 0740-2759) is published monthly by the Michigan Computer Consortium, Inc., P.O. Box 1302, East Lansing, Michigan 48823.

Copyright (C) 1984, Michigan Computer Consortium, Inc.

Individual authors retain all rights to articles appearing in ENERGY. (For items reprinted from other sources, contact the original publication.) Unless otherwise noted, material contained in ENERGY may be reproduced in whole or in part by any other non-profit organization or for other non-commercial purposes. Acknowledgement should be given to "ENERGY, the Michigan Computer Consortium Magazine", and to the author of the material. Please send a copy of the reprint to MC2 at the address above.

Subscriptions to ENERGY are provided as a benefit of membership in one of the clubs constituting the Consortium. Subscriptions are not otherwise sold. For information about joining one of the clubs in the Consortium, write the club at the address above.

ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium (MC2) was formed in 1983 to sponsor joint activities involving member computer clubs. Current members of MC2 are:

CCUG (Greater Lansing Color Computer Users Group)
CHAOS (Capitol Hill Atari Owners Society)
CMTUG (Central Michigan TRS-80 Users Group)
M36 (Mid-Michigan Microcomputer Group)

Information about each of these clubs is published elsewhere in ENERGY.

EDITORIAL BOARD

Dennis C. Cullinan.....372-6590
Terry Feichtenbinder...(CCUG).....371-1594
Mike Aldrich.....(CHAOS).....394-2412
Joe Werner.....(M36).....337-7415
Skip Osterhus.....(UPCO).....321-3425
Gary Martin.....(AppleLug).....394-0115
Marvin Goldstein.....(Treasurer).....332-5471
Alison Hazzard.....(Advertising).....349-7455

ADVERTISING

Advertising in ENERGY is an economical way to promote your products or services to a key audience involved in personal computing. Four sizes of ads are available: business card, quarter-page, half-page, and full-page. Advertising space is limited and controlled, so that ads will never get "lost". Camera-ready copy is needed by the 15th of the month preceding publication. Limited graphics artwork is available at an extra charge. For more information, contact the Editor.

ARTICLE SUBMISSIONS

Persons wishing to submit articles are encouraged to do so. Articles may be submitted via CompuNet or in camera-ready form (3.5 inch columns, 16 characters per inch, 8 lines per inch), or on disk. Contact any Editorial Board member. The deadline for articles is the 15th of the month preceding publication.



ENERGY = MC2...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

TABLE OF CONTENTS

Clubs data.....	3
ENERGY Info.....	4
M36 Section.....	5
H/Z SIG News.....	8
UPCO Section.....	16
CHAOS Section.....	9
CCUG Section.....	20
APPLE LUG Section.....	21
Person-to-Person Ads.....	20



SUPPORT OUR ADVERTISERS

When you support our advertisers, they support you. If you are planning to make a purchase, then call or stop by to see our advertisers first. Let them know that you are there because of their ad in Energy. If an advertiser doesn't have the best price in town, then give them the chance to do better, or at least consider what services they offer after purchase.

If a store doesn't advertise here, then let them know you would like to see their ad in Energy. Many dealers need to understand how many bonafide users read Energy regularly.

ABOUT OUR ADVERTISERS

ENERGY wants to take this opportunity to recognize our advertisers. These are the people who make it possible for us to bring you a high-quality magazine each month at a low cost. These advertisers support your interests; please give them your support.

Computer Consignments deals in used personal and small-business computer equipment, and new and used software and supplies. They take good used equipment on consignment, offering good deals and a changing inventory of systems for sale. Check them out!

Demco Control Systems has been a long-time advertiser. Demco handles Hewlett-Packard computers, including the Touchscreen, Portable, and Integral PC, as well as the LaserJet and ThinkJet printers and HP Calculators (the standard of the industry). They have recently added the AT&T Personal Computer line.

This month, we welcome **J & B Computer Products** to our family of advertisers. J&B features computer products, hardware and software, and the supplies that go along with computing. They claim to offer "the fastest delivery at the most competitive prices in town". Stop by the University Mall in East Lansing and check them out.

Kruse Company is another long-time advertiser and user-group supporter. Kruse handles the Morrow line of personal computers, Gemini Star printers, and paper, diskettes, and other supplies. Kruse is open evenings and weekends for your shopping convenience. Pay them a visit.

Quality Business Forms is a company capable of meeting your needs for stock paper or custom-printed forms. Dave Sanderson is the local representative, and would be delighted to answer your questions and quote you a price. Call Dave and find out.

TNT Computing is run by a CHAOS member who also helps put **ENERGY** together. TNT handles Atari add-ons, software, diskettes, paper, and other useful products, at favorable prices. For dynamite prices, give Mike a call.

Joseph W. Werner is a contract consultant and system implementor, specializing in computer communications. He is also a member of the **ENERGY** team and a regular contributor to **ENERGY**.

These advertisers deserve your support. When you are shopping for computer equipment, software, supplies, or service, be sure to contact them. And let them know you appreciate their ads in **ENERGY**.



If you know someone else who should be advertising in **ENERGY**, tell them about it. For further information, contact any member of the Editorial Board, listed on Page 4.

Also, be sure to check out our new Person-to-Person advertising. Members of Consortium clubs can place ads in **ENERGY** free for another month. Here's another way to get rid of that used equipment so you can buy the latest. And here's a way for others to find reasonably-priced used gear to enhance their computing.

CMARC Ham Fair 85

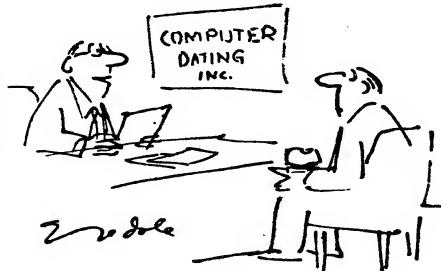
The Central Michigan Amateur Radio Club and the Lansing Civil Defense Repeater Association will sponsor Ham Fair 85, Central Michigan's largest Amateur Radio event, on Sunday, October 13, 1985, from 8 AM to 3 PM. The location is the Michigan National Guard Armory, 2500 S. Washington Ave., Lansing. (This is the old Grand Ledge Ham Fair, relocated.)

For more information, or for reservations, contact Rowena Elrod KA80BS, 111 Lancelot Place, Lansing, MI 48906, (517) 482-9650.

In past years, there have been many computer-related goodies among the stuff offered for sale by dealers and at the flea markets. If this is your interest, don't miss it!

ACM to Meet

The local chapter of ACM, the Association for Computing Machinery, will meet on Wednesday, October 9, 1985, at the Quality Inn, 3121 E. Grand River, Lansing (just north of Frandor). Social Hour and dinner will be at 6:00 pm, with the meeting at 7:30 pm. The speaker will be a member of the National ACM Speakers Tour, Dr. Platt, speaking on Machine Architecture. For more information, contact Lew Crippen, 377-6636 (days), 371-3179 (evenings).



"We fed your requirements for 'affection, loyalty, soft brown eyes' into our computer and came up with a basset hound."

M3G

Warren Wolfe
President, M3G

Data Basics
Modem: (517) 337-0261

2962 Horizon Drive
E. Lansing, Michigan 48823

The October meeting of M3G is Thursday the 24th, at 7:30 p.m. in the meeting room of the East Lansing Public Library. Meeting attendance is open to non-members.

D A T A B A S I C S B U L L E T I N B O A R D

Well, I finally did it! Data Basics has a working bulletin board system up and running on a (nearly) twenty-four hour schedule. This is quite an achievement for me, as I managed to get the thing up and running without the documentation. I did get documentation after it was running, which helped immensely with the last few bugs that were hiding in the system. Such fun! I have enjoyed the process immensely, and, since I am currently between jobs, the time it takes up has caused no resentment on my part. Hopefully I will be an old hand at this kind of thing by the time I am once again gainfully employed.

Figuring out the software was not the only problem I had. The very morning I got the board running, my previous contractee wanted their borrowed modem back. What a drag! Anyway, the good folks at the Okemos ComputerLand lent me one of their house brand board modems, but it didn't work in the PC/AT. They then (bless their hearts!) traded the board modem for a Hayes 1200 standalone, the modem for which RBBS-PC was designed. The board would not be in operation if not for the "above and beyond the call of duty" performance of Steve Almquist and Don Maloney at ComputerLand. As I have mentioned in a previous column, the Okemos ComputerLand folks have been helpful at every turn, and have offered the kind of after-the-sale service to me that I expect, but seldom receive.

Those of you who have modems are invited to call. The emphasis of the board is on the IBM PC family and the clones, with technical assistance offered through the message function.

Word spreads fast. I have had two interstate calls already. The board has gotten a surprising number of calls for a fledgling enterprise. Perhaps this article will draw a new audience.

I have yet to get my first hacker. In order to eliminate at least some of the potential for damage, I allow little capability to a new user, and immediately raise their priority once I identify them as "real people" to my satisfaction. I'm not sure how "bullet-proof" the RBBS-PC program is, so nothing on the system is there without a back-up copy safely tucked into a box! After all, I used to break into systems as a hobby, and I know how devious the little buggers with modems can be. (The statute of limitations has tolled on all my offenses, and I was never caught, for those of you who might be interested.)

Data Basics
Modem: (517) 337-0261



"Quality supplies for less"

Marshall's Computer Supplies

Dale Marshall
(517) 349-4671

5411 Marsh Road.
Haslett, MI 48840

JOSEPH W. WERNER
Independent Systems Consultant

202 University Drive
P.O. Box 926
East Lansing, MI 48823

(517) 337-7415
MCI Mail: JWERNER

WHY THUNDER AND LIGHTNING ARE VERY, VERY FRIGHTENING by Ginny Werner

I know some people who like thunderstorms, particularly when they come during a work day. They figure it might as well storm because they can't enjoy the day anyway.

I am not one of those people. I know what that storm can do to the computer.

Most of us are aware of what a lightning strike can do. It can fry chips, ruin drive motors, and whisk data away just as if it had never been there. I personally think that is what happened to the guy on the cover of the June 15, 1985, issue of *DATAMATION*. But lightning doesn't have to strike directly in order to cause problems.

One thing that can happen during a thunderstorm is a power surge or spike. This is a voltage that is much higher than normal. It can be much more subtle than a lightning strike. It may not wipe out a chip, just change a few bits in memory. The program you are running may suddenly start doing strange things. Or your drive might interpret the spike as a command to go off and write/erase something. A week or so down the road you may find a data file corrupted or you may find that the disk doesn't boot anymore.

Power surges have been known to cause head crashes. A head crash is when the read/write head of your hard disk drive meets the disk itself. (Think of what would happen if you dropped a 10 lb. hammer on the tone arm of your turntable while you were playing a record.) At this point you usually get to replace the hard drive. I hope you had it backed up.

Another thing that can happen is a power sag. This is when you get a voltage much less than normal. You might notice this because the lights flicker. Your disk drive might interpret the power sag as a command to go out and do something. Or you might be writing something already, in which case the drive will probably slow down and perhaps the read/write head will start to retract, and there it goes writing things where you don't want them.

Of course you can just plain ole lose power. This gets you all the fun of a power sag plus there is often a power surge just beforehand.

In either case, surge or sag, the amount of damage done is dependent on how important the information

is. If you couldn't care less about the data, nothing will happen. If it's that project you've been working on for two months and it's due tomorrow or they won't pay you, you'll probably lose everything - including the computer.

There are ways to protect yourself. One of the cheapest is to go out and get a power strip with a surge suppressor. Unfortunately, these don't help with a power sag. You can always go out and get an uninterruptable power supply (UPS). These regulate the power, blocking out surges and sags, and give you a certain amount of backup power when you lose power completely. They also cost an arm and a leg. Lastly, you can do what I do as soon as it starts to storm: shut everything off and unplug it. It is important to unplug everything to protect it against power surges.

Steve Ciarcia had a very good article in the December 1983 issue of *BYTE*. He explains about what happens when lightning strikes and what causes other power problems. I highly recommend it.

GLICKMAN ASSOCIATES

*Executive Search
Career Counseling*

Career Counseling For Professionals

- Resume construction
- Interviewing skills
- Career changing
- Locating the right companies
- Job search planning

349-7007

Editorial...

HACKERS AND VANDALS

by Joe Werner

"Hacker". For years, the name has been a badge of honor worn by those who enjoy working with computers. The term "hacker" has been applied to those who find joy in working with and improving computer hardware and software, and who do it for the fun and challenge of it, rather than just because "there's good money in it." And you can find a lot of contributions from microcomputer hackers in various public-domain software libraries.

The title "hacker" should be a title of honor. A hacker is to computer what a "ham" is to radio. Many significant breakthroughs in radio technology have been made by the radio amateur, or "ham". We have the hacker to thank for many software and hardware advances of the past.

But in recent times, the term "hacker" has been misappropriated by the news media and by others. It has been applied to those whose "joy of computing" comes at the expense of others. You've seen the stories. The modern-day "hacker" breaks into credit-card databases to alter records. The "hacker" breaks into hospital systems and damages records, possibly resulting in life-threatening conditions. The "hacker" hoists the Jolly Roger, coming up with new and innovative ways to steal software. The "hacker" breaks into classified government computer systems and endangers the safety of our country. The "hacker" even almost started World War III -- there are those who believe that "War Games" was a true or possibly true story!

Well, the time has come to call these people what they really are. They are not hackers, for the term "hacker" is too honorable for them. We should call them "computer vandals", and "thieves", and "criminals". In an editorial in the August, 1985, issue of **COMPUTER DIGEST**, an insert in **RADIO ELECTRONICS** magazine, editor Byron G. Wells wrote: "Hackers are morons with computers. They've got nothing else to occupy their minds, they're hungry for a little notoriety, and for my part, they should be treated as exactly what they are -- crooks. There's no redeeming quality at all in them, they are NOT to be admired, and what they are doing hurts all of us."

It's time we speak that message out clearly. I am not a crook, but I am a hacker, and I'm proud of it!

H/Z SIG NEWS

by Thomas Trana

I missed both the Aug. and Sept. meetings, so can't say much about either one. The August meeting featured reports from attendees at the HUGCON in Chicago, and judging from the volume of literature which one member picked up for me, there was more than enough material to discuss. Some of the convention specials certainly made me wish I had been able to attend (CP/M-86 for \$20?!!!).

In the last column that I wrote, I mentioned that I had upgraded my Z-100. My experiences probably weren't unique but discussing them might clear up problems for other neophytes tackling the same task. I ordered the C. D. R. Z100 Speed Module (=SM) from C. D. R. by phone. It came within two weeks. I had not noticed during previous machine dismantlings what brand of 8088 was installed. While installing the SM, I found out my Z-100 contained an NEC microprocessor. The SM manual (overall, rather good) stated that NEC's had to be replaced, along with Intel '78's, because they won't run reliably at 7.5 MHz. I figured I had nothing to lose, so I installed the SM, and powered up, first at 5 MHz (worked fine) and then 7.5. Things were apparently fine--at first. WatchWord and Condor worked with no problem. While running a BASIC program, an error message appeared which did not make sense in light of the cited line. Then, after mulling over the Z-BASIC manual to figure out what was wrong (this program had been run several times before with no problems), wild interrupts started flashing all over the screen. Turning the machine off and rebooting did not clear up the problem. The next day the same thing happened. Apparently my NEC chip would run at 7.5 MHz for about 20 minutes and then turn flaky. I went back to 5 MHz for a couple of weeks and had no problems. Meanwhile, I started looking for a replacement 8088, and that's where I learned something that I hadn't come across before.

More technically knowledgeable users may already know about the marking system of the Intel 8088 chips, but I didn't. In the SM manual, they say that Intel '78 chips must be replaced but that '78-'81 chips are O. K., and will run at 7.5 MHz. Well, I naively assumed that "'78-'81" was a misprint, and that they meant "'79-'81", i.e., that chips labeled '79, '80, '81, etc., worked. The first place that I called, Microprocessors Unlimited, had "ceramic" 8088's marked '78-'81. In retrospect, I don't know why I didn't realize what was going on, but under the pressure of a long-distance phone call, I didn't and so passed up their chip. The next place had '78 chips only. The third place, Advanced Computer Products Inc., told me that they had Intel 8088's marked '83. It seemed reasonable at the time that if '81 versions would work, '83 ones should too. However, when I finally received the 8088 from ACP, it was marked '78-'81. Apparently this means '78 mask, '81 revision, and that is the standard version now available. The upshot of it all was that I paid over twice as much as I would have had to, and it took over twice as long to get the chip. And therein lies another tale, but one that will have to wait until next month because I'm don't have time to finish it here.

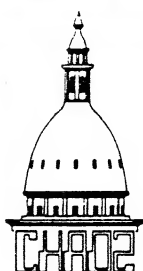
Quality Business Forms

5521 Joshua • Apt. 7 • Lansing, Mich. • 48910

DAVE SANDERSON
Account Representative

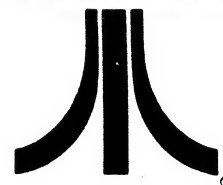
Home (517) 393-1762
Business (517) 743-5106

COMPLETE PRINTING SERVICE • FORMS DESIGN



C.H.A.O.S. WELCOMES YOU
TO THE WORLD OF THE

ATARI



CHAOS is not affiliated with Atari

CAPITOL HILL ATARI OWNERS' SOCIETY

PRESIDENT'S CORNER by Leo Sell

Well, we're getting into autumn and lots of changes are in the air. Things are changing at C.H.A.O.S. too. We have shifted personnel around and announced some contests for people to be involved in. So, here are a few details.

Those of you who attended the September meeting are pretty much aware of the changes in personnel. Rodney Shelton has taken over as our Disk Librarian. Guy Hurt moves to Program Coordinator. Gary Ferris is going to handle Membership Coordinator duties. I'd like to thank all three for their help in the past and in previous positions, and for volunteering to take on other responsibilities. Thank you very much gentlemen. Theirs is an example of the kind of involvement we need from C.H.A.O.S. members.

For the first time in a long while, C.H.A.O.S. is sponsoring a couple of contests. From the September meeting to December 1st, there are 2 contests taking place. A membership recruiting contest and a programming contest. The contests end December 1st with winners to be announced at the December meeting. First prize for both contests is your choice of an Atari 1020 printer/plotter, an Atari 1030 modem or a \$50.00 gift certificate from TWT computing. In the programming contest there will also be a second prize (\$25.00 gift certificate) and a third prize (\$10.00 gift certificate). General prizes and incentives will be offered as well. As always, if your submitted program is accepted into the library, we will give you a free copy of a library disk. In the membership contest, we will give a \$10.00 gift certificate to you for every 4 new memberships you bring in. And everyone who brings in at least 1 new member will receive an Atari Realsports cap. (While the supply lasts). We will distribute the general prizes as I have outlined, but the Board of directors reserves the right not to award the merchandise and certificate prizes.

Now for the rules. In the programming contest, all entries must be completely original and free to be placed in the public domain. Other considerations as to quality, utility and amount of challenge to the programmer's abilities, will be at the discretion of the judges. Judges are Lance Ward and Claus Buchholz. I will act as a tie breaking judge. Programs may be submitted in any language but must be on disk or tape, have identifying information in the comments and all source code must accompany the final run form of the program. Please identify the program

properly as a BASIC object file or ACTION listing. Use other extenders if needed for documentation or for other languages. And please provide a Runtime version if you submit an Action listing.

The membership contest has one primary rule. To be considered a new member a former member's expiration date must have been previous to July 1985. Outside of this provision, former members as well as nonmembers are wide open to your recruitment efforts. Last but not least of course, is that both contests are open only to members in good standing of C.H.A.O.S.. GOOD LUCK TO ALL OF YOU!!!

Enigma Industries press release
downloaded from
MACRO exchange 617-667-7388

(A ludicrous - or prescient - idea.)

Enigma Industries is pleased to announce the answer to the new 3-inch minifloppies, Enigma's new 3/4-inch supermicro-minifloppy, know as the "flakey floppy" after its developer, Thorovly Flakey. Flakey floppy disks are about the size of a quarter and are able to store ten megabytes per side. They have three sides.

Such high information density is possible using a special technology that allows the magnetic locations to be stored not, just horizontally, or vertically, but both - and diagonally as well, and all at the same time.

Enigma Industries plans to sell software through modified bubblegum dispensers controlled by their own microprocessors that will relay inventory information, sales totals and the number of slugs put in the coin slot back to the main office for virtually real-time monitory. These dispensers will be placed in supermarkets, hairdressing salons and laundromats in order to ensure the widest distribution.

Enigma Software, a division of Enigma Industries, plans to market Gothic romance novels on flakey floppies and to market a voice synthesizer that reads the novel to you in a sultry female voice. We at Enigma feel the computer has arrived for the great mass of Americans, and it is now important to provide software that meets America's real needs. Soon to come will be a soap opera package, trivia quiz, astrology programs, and a jogging and exercise spreadsheet.

Remember, if it runs, its an Enigma

Bruce Skogen, President, Enigma Industries
San Francisco, CA
From K.D. ACE

SERIOUS COMPUTING -

ALMOST "PERFECT"
WORD PROCESSING

By Steve James

Larry Kamons, a former officer of PACE, once said that he could think of only three truly justifiable reasons for buying a home computer: entertainment, education, and word processing. While I think Larry missed some other valid reasons for owning a computer, I feel that the three items he considered are worthwhile applications of microcomputers. Using a computer instead of a pen or typewriter makes excellent sense. In fact, word processing often seems the first "serious" application that home computer owners try.

Atari owners often read in computer magazines that their machines do not have adequate word processing software. These articles are usually written by well-meaning but under informed (perhaps misinformed) people who obviously have not taken the time to survey all the word processing software available for Atari computers. The recent (December 1984) issue of Creative Computing continued the tradition of sloppy reporting by listing only four titles that can be used for Atari computers in several pages of word processing software lists. They listed AtariWriter, (probably because it is made by Atari) Bank Street Writer, Cut and Paste, and Homeword (all of which are available for other computers). However, they left out what I think is the best word processing package for Atari computers: the new Letter Perfect.

Of course, Letter Perfect was available soon after Atari computers came into widespread use. Versions were made for use with the Bit-3 80-column card, on diskette, or in a cartridge (no AtariWriter was not the first cartridge word processor for the Atari). However, Letter Perfect had its drawbacks. First of all, it came with a large and confusing manual. Though the documentation contained a tutorial, the tutorial section came near the end of the manual and seemed bewildering to most everyone who read it. To make matters worse, LJK developed their own Disk Operating System (DOS) using a different format than the standard Atari 2.0S DOS. This made it impossible to exchange text files directly with other Atari programs, such as telecommunication software. Also, when you

purchased an 80-column cartridge version of Letter Perfect, you could not use it on a machine without the Bit-3 board, nor could you access the 80-column features from a 40-column cartridge version of the program. Printer interfacing was complicated and permitted only rudimentary access to special printer functions (such as proportional spacing). Still, Letter Perfect had more usable word processing features than any of its competitors. Using the 80-column version turned the Atari into an awesome word processor suitable for even small business applications.

Most software companies would have probably rested on their laurels and paid little attention to their customers once their product had sold enough copies to give them a decent return on their development efforts. However, LJK is different. The people at LJK seem to take pride in their products and have upgraded and improved them. The first change was to market both the 40 and 80 column versions of the program on the same diskette, making the program more transportable. But, that was a minor tune-up. Recently, LJK finished a major overhaul of Letter Perfect resulting in Version 6.0 of the program. The most noticeable features of this new version are that it will support single or double density disk drives, it comes with greatly improved documentation, and it is not copy protected.

The people at LJK deserve compliments for bucking the trend towards more and more complicated disk protection schemes and allowing the buyer to make his own backup copies. Furthermore, by not copy protecting Letter Perfect, LJK allows the buyer to "install" a copy of the program for his or her particular equipment combinations. Thus, while they sell only one program diskette, someone using a Bit-3 80 column board and double density disk drives can set up a working copy that boots up ready for this combination. If that same person also had a "standard" display and single density disk drives, he could have another working diskette ready to boot up in that mode as well.

During installation, you choose the type of parallel printer support you need. Version 6.0 of Letter Perfect fully supports Epson, Okidata 92, NEC PC8023, C. Itoh 8510 Prowriter, and Centronics dot matrix printers as well as the NEC and Qume letter quality printers. If you own a different (non-compatible) brand of printer, don't despair. You can set up custom printer support by following menus on the screen and a worksheet in the manual.

SERIOUS COMPUTING - continued from previous page

If you do not save the file here, you can still save it from the Letter Perfect File access menu, provided you do not wipe the memory first.

Letter Perfect also supports database merging with LJK's Data Perfect program. Again, the combination works tolerably with one disk drive, but two drives are necessary for any large applications. Most likely, you will only use the database merge feature for mass mailings, or form letters where the database holds names and addresses. The new version of Data Perfect comes like the other LJK products on a non-copy guarded diskette and can be configured for double or single density drives.

The documentation for version 6.0 is vastly improved over previous releases. It comes in a nicely printed 5"x8" spiral paper bound booklet. This is much handier to prop up on your computer than the old 12" notebook. You can open the manual to any page for reference thanks to a comprehensive index. The text is well written and the tutorials are upfront, before the detailed descriptions of the program features. It also carefully explains how to make back up copies of the program, how to install it for your particular system configuration and how to make Letter Perfect work with your printer.

In the title to this review, I used the words "almost perfect" to describe LJK's latest efforts. While they have made Letter Perfect easier to use and easier to understand, they left in some minor problems. The most bothersome is their retention of the LJK DOS rather than a DOS that observes Atari DOS 2.0S protocol. To get around this problem, you must buy the LJK File Utility Program which will convert files between the two DOS protocols. This program works well, but I don't see why we should have to go through an extra step to get a text file in a form where it can be uploaded to a Bulletin Board. Spell Perfect only recognizes words that are three characters or more in length. So, if you type "ab" for "an", the program will not alert you. Also, the memory available for text is a bit less than in earlier versions of Letter Perfect. However, you have over 28,000 bytes available on a 48K machine, slightly more than double the 13,000 bytes available for AtariWriter.

All things considered, the good points clearly overwhelm the few inconveniences of Letter Perfect. It represents an excellent buy and can make the Atari comparable to the Apple II computers for light and medium duty word processing. The people at LJK provide excellent support and follow up to their customers. I have called them a couple of times and found them to be courteous and helpful. For the serious writers out there, the 80 column program usable with the Bit-3 board or Omniview by CDY is a real boon. And, XL owners rejoice, CDY is now marketing a replacement ROM for the XL computers that permits installation of Omniview. So, now that you are beginning to feel a little guilty about playing all those games you got for Christmas, buy Letter Perfect for your Atari. What better way is there to start on your thank you notes.

Presenting The
ACE80
Cartridge

Amiable Computer Enhancements (TM)

NOW!! Have 80 BEAUTIFUL columns for your LETTER PERFECT and BASIC programs! Great on TVs & Monitors! For ALL 400/600/800/130 Reg/XL/XEs with Min/48K. Please specify model. Send \$49.95 (Mich Res add 4% tax) + \$2.50 postage (Cer/check or M/O). Money Back Guarantee. For more info call: (517) 394-2412.

TNT COMPUTING

Quantity  P.O. Box 443
Discounts! Holt, Mich 48842
Atari Corp(TM), LJK Enterprises(TM)

FROM THE EDITOR
Mike Aldrich

Hi! Its pretty late, gotta make this quick. Some of you might have heard about what the lightning did around the 1st of Sept, some not. Anyway our BBS system took a blow thru the telephone wire, scorched our Mark VII and put us down for a few days. Well, Castle Communications was nice enough to loan us a modem. THANKS BARRY!! How about lending me a printer? Yeh, thats right, lightning struck my house too, thru the telephone system. Got my modem, interface, printer, and two disk drives. I am still limping along and was able to put out the newsletter THANKS TO MARVIN GOLDSTEIN, thanks again Marv! Also, Leo Sell came over Sunday and help me put this newsletter together, THANKS LEO. We sure have some super people in our club (And elsewhere) don't we! Well, I sure miss having my modem. If you left me a message on the BBS or an article, you'll have to send it care of Leo for a while. Better go get some sleep, Till next month, Arrivadercha!

HELPFUL HINTS by Leo Sell

Recently it dawned on me that many of our newer members, and some of the older members for that matter, are confused about the format and use of C.H.A.O.S. library disks. Here are a few hints to help you out.

Outside of the DOS, DUP and AUTORUN.SYS files, there are 3 extenders you are likely to see on a C.H.A.O.S. disk. An extender by the way is the part of the file name following the period such as MENU.BAS. It is not required that an extender be used when naming a file but if you do use one it may be a maximum of 3 characters. The most likely extenders you will run into are .BAS, .OBJ and .DOC.

Programs with a .BAS extender are saved Atari Basic programs. They may be accessed through the use of the LOAD command followed by RUN or to save time, use the RUN command directly from disk. This is done as follows: RUN (or LOAD) "D:PROGRAM.BAS". The first pair of quotes must be used as must the colon. Furthermore, you must type the program name exactly as it appears on the directory. On occasion you may run into a file which will not load as I have outlined. Before you assume the file is no good, try this: ENTER "D:PROGRAM.BAS". Sometimes a program may have been listed to disk, although the correct extender in that case is either .LST or .ENT. Nonetheless, try this before giving up.

Another extender that is commonly found is .OBJ. Less often you may see its equivalents, .EXE or .BIN. All of them are handled the same way, but .OBJ is the most common of them. OBJECT files are machine language files that must be loaded from DOS option L. After you choose option L from the DOS menu you will see the prompt "load what file?". Respond with the file name and it will load and run. If you use DOSXL you simply type the program name at the D1: prompt.

The third extender you may see is .DOC, standing for Documentation. You may also see .TXT or .DSC for text or for description respectively. They are all handled the same way. From the DOS menu use the Copy option. At the "From, to" prompt, type the file name, a comma, and the device name. For instance, to copy to the screen, at the prompt you would type: D:PROGRAM.DOC,E: This will allow you to read the file directly on the screen. To stop and start the display, use control-I. For printed output, respond with: D:PROGRAM.DOC,p: With DOSXL, you may use the Copy command ie: COPY D:PROGRAM.DOC for the screen or D:PROGRAM.DOC p: to copy to printer. If you prefer, you can also use the TYPE command. Simply replace the word Copy with Type.

I hope this will alleviate some of the confusion in how to handle C.H.A.O.S. library disks. I recommend that the first thing you do is look for and read any documentation or description files on the disk. Hopefully, with this knowledge you can better use and enjoy your disks. Happy hacking.

Here's a simple program to try!!

```
10 REM RANDOM LINES AND SOUNDS
20 REM SPEED IT UP OR SLOW IT
30 REM DOWN BY CHANGING THE LOOP
40 GRAPHICS 7
45 SETCOLOR 2,0,0
50 COLOR 1
60 FOR COUNT=1 TO 20
65 NEXT COUNT
70 SOUND 0,AND(1)*255,10,12
80 PLOT AND(1)*125,END(1)*75
90 DRAWTO RAD(1)*125,AND(1)*75
100 GOTO 70
```

*We need an article
from you today!!*

MY 3 IN 1 ATARI
by Terry Kerr
Reprinted from ACUSOFT

My primary use for my ATARI is database management. I maintain a computer database file for business files, for business accounting, for personal accounting, for ACUSOFT membership, and for my personal address book.

Initially I was quite happy with an excellent database program available for the ATARI called Data Perfect. Not only was this program extremely well written, but compared to similar programs targeted for business users, it was relatively inexpensive. In time, however, I discovered that the volume of my files had outstripped the capacity of my disk drives and the limitation of Data Perfect to single density, single sided disk drive format. My solution to the problem was to buy an ATR8000.

The addition of the ATR8000 enabled me to use any of a multitude of non-ATARI disk drives with my ATARI. I ultimately ended up with two double density, double sided, TEAC drives which multiplied my storage capacity 8 times. This additional capacity alone was not the entire solution, however. Data Perfect had not been designed to use the extra available space, but most business oriented programs were. Fortunately the ATR8000 comes with the Z80 microprocessor which was used with many of the microcomputers targeted for business use. I was therefore able to begin using a Z80 program called DBASE II which left data storage up to the versatile ATR8000.

The ATR8000/DBASE II combination served my needs extremely well for about a year; but as the size of my data bases expanded, the time to index them increased. Eventually it began taking 45 minutes to index my longest

CHAOS

data base file. I knew that the use of a hard disk would solve the problem, but the cost was more than I could justify. While I was wrestling with the problem, however, Software Publishers (the manufacturers of the ATR8000), came up with the solution. They introduced the COPOWER 88 PLUS. This is a plug-in board modification to the ATR8000 which gives the ATR considerable additional RAM capacity plus an 8088 microprocessor. The latter allows the ATR user to run many IBM PC and MSDOS programs.

I bought the COPOWER PLUS board about a month ago. The list price was \$600, but I was able to get it for \$450 from former ACUSOFT members Bob and Karen Amster who now operate a computer store in Charlottesville, VA. It came with 256K of memory which I quickly expanded to 512K for an additional \$86.

Thus far I have found the 8088 microprocessor of limited use since I have acquired only a couple of MSDOS or IBM programs that run properly. However, since most new software is being written for the IBM or IBM compatible machines, I suspect I will ultimately find the 8088 a great asset. For now, however, I have found the additional RAM alone to be worth the purchase price.

The COPOWER PLUS board comes with a disk based software program called RAMDISK. This program allows the COPOWER board's RAM to be used as a simulated, ultra fast, disk drive for the Z80 microprocessor. In my case this meant a drive with 512K capacity which could be increased in 256K increments to 1024K. With it in use, I was able to cut my previous indexing time of 45 minutes to just over 5.

So I now have a three in one ATARI: my 6502 ATARI, which I love; my Z80, CP/M machine, with 512K RAMDISK, which I also love; and my somewhat IBM compatible 8088 machine, which I'm sure I will learn to love.

New Uses For DOS

by Michael Stomp

reprinted from the ACCESS Key Atari Computer Club
Encompassing Suburban Sacramento

If you are like most of us, when you first read the DOS manual and came to the command "C. Copy File", you probably concluded that it was just for copying files with two disk drives and promptly forgot about it since you had only one. Not true! It is not necessary that both source and destination files be disk files; as a matter of fact, it is not necessary that either be a disk file. This leads to some interesting uses that you perhaps haven't thought of.

The reason for this lies in the way I/O is handled by the Atari. All devices are treated in the same way - as files. It is just that for devices other than the disk drive there is only one file per device. As a result, the source file can be (almost) any legal device. That is, you can copy from D: (disk drive), C: (cassette

recorder), E: (editor), and perhaps R: (RS232 device) - but not K: (keyboard); DOS won't allow that. Likewise you can copy to D:, E:, C:, P: (printer), S: (screen), and perhaps R:. (I say 'perhaps' because I haven't tried R: myself, but it should work). Here are a few uses of Copy that I find to be handy.

1) Copying from a disk file: You can examine a disk file by copying to S: or E: and using <CTRL>+I to stop and start scrolling. The difference between S: and E: lies in how control characters (i.e. CLEAR, RETURN, CURSOR ARROWS, etc.) are handled; E: will perform the action denoted by the control character, while S: will display the character itself. (I find it best to use E: usually.) You can make a hard copy of the file by copying to P:, but be careful with binary files or tokenized BASIC programs; some of the characters in the file might be printer controls codes and do some strange things to your printer (change pitch, advance the paper, etc.). I find this to be a handy way to print stuff that I have captured from a BBS, documentation files, etc..

2) Copying from E:, the editor: This in essence allows you to type directly to another device and still use the screen editing commands - in effect use DOS as a poorman's test editor. Here's how it works. After you respond to the prompt, "COPY FROM, TO" with "E:, (the output device)" the cursor will return to the left and wait for you to enter text. You can then type whatever you want, using the cursor arrows, delete, backspace, etc. to correct the text and get it right, but what you type isn't "registered" until you push <RETURN> while the cursor is on the line. After that you can't make any more changes, that line is on it's way. If you push <RETURN> a second time while the cursor is on the same line you will get a second copy of the same line, and the lines are sent in the same order in which you "registered" them. (The lines can be longer than 40 characters, the screen wrap around will handle that.) If you fill the entire screen you can then clear the screen and type another; nothing will actually be sent to the output device until you terminate the copy operation by typing an end of file (EOF) character, which is <CTRL>+3. The text will then go to the output device and you will return to DOS. By copying to a disk file you can use this technique to prepare data files for a program, etc. If you have a MEM.SAV file on the disk you can do this while writing a program in BASIC by calling DOS, and when you return to BASIC your program will still be there.

I find copying from E: to P: to be the handiest use of this technique; it is an easy way to set up the printer controls for type size, etc. without sticking them in the text file I want to print. I also find it useful for addressing envelopes, in effect using my Atari as an electric typewriter!

There are several other combinations which I haven't tried yet; experiment yourself and let us know if you come up with anything useful. (some information used here was adapted from an article by Jim Warren published in the San Leandro Club's Newsletter.

Reprinted from Keeping Pace 2/85

DON'T HESITATE, MAKE COPIES!

BY KENNY GARRIS JR.

The chances are that you have been told at one time or another to make back up copies of all your programs and games incase of a disk failure, but you never listened to that, I mean you have had your computer for a good while now and you never once encountered a bad sector, right?

WRONG!! I have had my computer for about 3 years now, bought over 500 disks and never had a bad sector. Since the day I received my 810 disk drive everyone has been telling me to make back up copies, I said, "sure.. sure..". But I knew that something like encountering bad sectors couldn't happen to me, that just happens to other people, and besides I treat my disks with care.... Then it happened:

I came home from school as usual, turned on the computer and was about to enter my test grades for the day. When all of a sudden, in the middle of loading my grade calculator program, the drive burped! ERROR 144! I tried to copy the disk and found 11 bad sectors!! I was very depressed, all of that work down the drain. But little did I know, for it didn't go down the drain alone... Later I went to load my word processor program to work on my english paragraph, BURP! Same thing! This time it was 8 bad sectors. The homemade program was lost forever. This still, for some strange reason, did not convince me to make copies. The next day it was my own BBS program! I went Hysterical, lucky for me the 3 bad sectors were in "DOS.SYS" and "DUP.SYS", Whew! This convinced me, I now have 2 or 3 copies of everything.

Do yourself a big favor and take the time to make back up copies of everything you have(EVEN PACE LIBRARY DISKS), in the long run it is well worth it.

LIFE

Don't take life too seriously. You will,
never get out of it alive.
--Elbert Hubbard

Life is what happens to us while we are
making other plans.
--Thomas La Mance

Give a man a fish and you feed him for a
day. Teach a man to fish and you feed him
for a lifetime.
--Lao Tzu

AND, OR, NOT BASIC'S SECRET OPERATORS
by Terry Kerr

For some reason, which I have never quite understood, one of the more useful sequence of operators in the BASIC language is also one of the most ignored. The ATARI BASIC manual by Altract, Finkel, and Brown doesn't even mention them; and my ATARI Bible, YOUR ATARI COMPUTER by Ion Poole, deals with them in a way that would make most programmers think they were not the stuff for mere mortals. These operators are commonly called Boolean Operators or Logical Operators, but can be more easily recognized by their real names: AND, OR, and NOT; and in actual fact they are all three quite easy to use and understand.

Each of these operators work exactly as their name implies. They are most commonly used in IF/THEN statements, but can be used in arithmetic expressions as well. The easiest way to explain how they work is to illustrate their use in a short program as follows. We will start with AND.

```
10 A=1:B=1:C=1:D=2:E=2:F=2
20 IF A=1 AND B=1 AND E=1 THEN PRINT "OK"
```

In the above illustration OK will not be printed because all three of the conditions were not true. If in line 20 we were to say E=0 instead of E=1 then all the conditions would be true and OK would be printed.

Now let's look at OR.

```
10 A=1:B=1:C=1:D=2:E=2:F=2
20 IF A=3 OR B=5 OR F=2 THEN PRINT "OK"
```

In this illustration OK would be printed because only one of the expressions needed to be true for this to happen. If we were to change F=2 in line 20 to F=0, then none of the conditions would be true and "OK" would not be printed.

Now for NOT. NOT is a little harder to visualize in use than the first two, but still not all that complicated. NOT simply asks for the opposite as in the following program.

```
10 A=1:B=1:C=1:D=2:E=2:F=2
20 IF NOT A=6 THEN PRINT "OK"
```

In the above illustration OK would be printed because it was not true that A=6. If in line 20 we were to change A=6 to A=1 then OK would not be printed.

Any two or all three of these operators may be used together in the same program line in various combinations. They may be used with string variables as well as arithmetic variables, and may be used with many of the arithmetic operators such as +, -, /, *. The following program should help to illustrate.

```
10 DIM A$(5)
20 A=1:B=2:C=3:D=4:A$="ATARI"
30 IF (A=1 AND B=1) OR (D=4 AND
A$="ATARI") THEN PRINT "D"
40 IF NOT A$="IBM" OR D=4 THEN PRINT "ADK"
50 IF NOT (C=2 OR A=C OR E=1) AND
A=1 THEN PRINT "BOK"
```

Try to figure out what each of these program lines will do then try running the program on your ATARI.

Let's Go Tabbing

by Stephen Lewis

Atari Computer Enthusiasts of Salt Lake City

Using and changing the tabs is not as easy and simple as it should be, therefore it allows articles to be written about using them. This is mine.

The place where most of us need the tab is in the print statement to format our input or output. There are several command and ESC and CLR-SET-TAB keys as shown in the Basic manual. I won't go into this way except to say the big problem is clearing the old tabs. Second is to set up the correct memory locations using pokes.

Some confusion may exist between the function of these locations. TABMAP sets the tab stops when using the TAB key whereas PTABW sets the spacing represented by the comma in a print statement.

First I will discuss TABMAP, which sets the TAB key stops. Its locations are 675 through 689 which is 15 bytes long. Each bit corresponds to a character location in the logical line. A logical line is 120 characters long which means we need 120 bits for the corresponding map. This is exactly 15 bytes. A one bit means tab stop and a zero bit means tab clear. To clear all tabs simply poke zeros into all 15 bytes.

```
FOR I=675 TO 689:POKE I,0:NEXT I
```

Changing graphics modes or system reset puts the default values back into TABMAP.

It may help to figure out your tabs to realize that there are 5 bytes in each physical line and three physical lines to each logical line. At the end of the article is a program and an aid to help you.

A second location is necessary to use in some applications. It is 201, PTABW, print tab width which is the number of characters between items in a print line separated by commas. It is not reset to its default value of ten by system reset or changing graphics modes. In graphics mode 0, 1, and 2 it counts characters and in graphics mode 3 through 8 it counts pixels. It has a minimum value of 3. In fact if you poke 201,0 the system will lock up when a print statement is encountered with commas in it.

The value of PTABW is not really the spacing of the print line. If you poke 5 into PTABW the whole line is set up with tabs every 5 characters. Also the system requires 3 spaces after an item before it will recognize a tab which means you can have 4, 5, 6, 7 spaces between items. To insure that your columns remain straight the number you put into PTABW should be at least 3 characters longer than the number of characters in the item.

One more point to add to the confusion. These two TAB functions have nothing to do with each other. Have fun!!!

```
10 REM PROGRAM TO DEMO TABMAP
20 REM JAN 1 1985
40 GOSUB 1500
50 GOSUB 1000
90 PRINT "12345678901234567890123456789012345678"
100 PRINT " PRESS TAB ":INPUT T
200 PRINT A,B,C
```

```
210 PRINT
900 GOTO 50
999 END
1000 TRAP 999:REM TABSET ROUTINE
1020 FOR I=675 TO 689:READ D:POKE I,D:NEXT I
1030 TRAP 200:RETURN
1100 DATA 0,0,0,0,0,0,0,0
1110 DATA 0,0,0,0,0,0,0,0
1120 DATA 8,8,8,8,8,8,8,8
1130 DATA 8,8,8,8,8,8,8,8
1140 DATA 255,255,255,255,255,255,255,255
1150 DATA 255,255,255,255,255,255,255,255
1160 DATA 1,1,1,1,1,1,1,1
1170 DATA 1,1,1,1,1,1,1,1
1500 REM SET NUMBER VALUES
1530 A=1:B=999999999:C=12345
1550 RETURN
```

```
10 REM PROGRAM TO DEMO PTABW
20 REM JAN 1 1985
40 GOSUB 1500
50 GOSUB 1000
60 PRINT " WHAT TAB ":INPUT T
70 POKE 201,T
90 PRINT "12345678901234567890123456789012345678"
100 PRINT A,B,C
210 PRINT
900 GOTO 60
999 END
1000 REM TABSET ROUTINE
1010 RESTORE 1100
1020 FOR I=675 TO 689:READ D:POKE I,D:NEXT I
1030 RETURN
1100 DATA 0,0,0,0,0,0,0,0
1110 DATA 0,0,0,0,0,0,0,0
1500 REM SET NUMBER VALUES
1530 A=1:B=999999999:C=12345
1550 RETURN
```

FROM THE EDITOR
Mike Aldrich

Hi! For those of you who are wondering what happened to the program for "The Sensitive Atari" that was printed in the July/August edition. Have faith, I'm still looking. I'll bet the Publications Librarian can find it. Bet you'll see it next month. It's realllly late now. Better go. See you at Foster this month.

UPCO

Users' Personal Computer Organization

DAM List:

About UPCO:

UPCO was formed in early 1982 and is a non-profit organization of personal computer users in the Lansing area. Membership is open to anyone with an interest in personal computing. Most members have an IBM computer but there are also members with Tandy, Compaq, DEC, Leading Edge, DataVue, Columbia, and others.

Meetings:

UPCO meets the 4th tuesday of every month (except in December when Christmas interferes) at 7:30 p.m. in room 116 (auditorium) of the Agricultural Engineering building on the MSU campus in East Lansing. The Ag Eng building is located on the SE corner of Shaw and Farm Lane (across the street from the Planetarium). The structure of each meeting is usually:

7:30 - 7:45 Club announcements
7:45 - 9:00 Main presentations
9:00 - 9:15 Break - sign up time
9:15 - 9:20 Door prize awarded
9:20 - 9:30 Open question and answer

The times will vary according to the length of the presentations. To be eligible for a door prize you must be a paid member and in attendance.

Dues:

UPCO dues are \$5.00 per person per 12 months and can be paid at the meetings or can be paid by sending a check made out to: Dick Janson
8902 Bath
Laingsburg, MI 48848

Affiliations:

UPCO is a member of the Michigan Computer Consortium, and of the the IBM Exchange organization.

Newsletter:

UPCO members receive each month a copy of ENERGY, published by the Michigan Computer Consortium, as a benefit of membership.

Bulletin board:

UPCO maintains a RBBS for its' members from 6:00 p.m. till 8:00 a.m. (all day weekends) at 517-655-6594. Mesages may be left/read and software up/downloaded.

UPCO keeps track of data about members thru the DAM list. When each member signs up, a form is filled out indicating the users' hardware/software combination and this info is compiled and made available to each member from time to time. Only the summation of each category is made available and not the names so as to protect each members' privacy on this matter. Members are encouraged to keep their info as accurate and current as possible. The purpose of this list is for the situation where one member would like to talk with another member about a particular piece of hardware or software. The member should contact the keeper of the DAM list and find out if another member has the hardware or software of interest. The keeper of the DAM list will arrange for the two parties to talk.

Special Interest Groups (SIGs):

UPCO currently has one SIG formed around the 'C' language. Members interested in this SIG should contact Larry Shields at 517-337-0904 after 6:00 p.m. Other SIGs could be formed around the Tandy 1000 or the IBM PCjr, etc. Anyone interested in forming a new SIG should contact the UPCO president.

Free software:

UPCO makes available many diskettes free for the copying at the meeting. Each member should bring some pre-formatted blank diskettes to the meeting to do the copying. Blank diskettes will be sold at the meeting by UPCO (\$1.50/black and \$2.50/other colors) for the members' convenience.

Club software library:

UPCO has a club software library of over 60 diskettes that sell for \$5.00 each to members. Members can fill out an order form at each meeting requesting the particular volume desired and turn this form over to the software librarian. Members are encouraged to contribute their own public domain software and in doing so will be granted a free diskette in return. UPCO does not tolerate PIRATING software by members.

Officers:

Office	Officer	Home phone
President.....	Skip Osterhus.....	517-321-3425
Treasurer.....	Dick Janson.....	517-675-7453
Software librarian.....	Les Mack.....	517-339-8835
Secretary.....	Doug Pfister.....	517-332-6069
Keeper of the DAM list....	Jerry Warren.....	517-321-7599

UPCO

UPCO Notes

by Skip Osterhus

Old business:

August meeting: August 23rd, 1985 at 7:30 p.m.
Place: Room 116 of Ag Engineering
Attendance: 46
Door prize: Script/6L
Winner: Tim Clements
Speaker: Jamie Dinkalacker and Kim Downing
Topic: Software demo of Diagraph and
Picture Perfect.
DOM: Yes
EXCHANGE: August 1985

- 1) Please take note that our Disk-of-the-month (DOM) is being previewed in each issue of ENERGY. This will give you advance notice of what is to be at each meeting. As time permits we will also document previous DOM's.
- 2) I will have any new or old issues of EXCHANGE at each meeting so if you are a paid member please feel free to come up and get your single copy of each month.
- 3) The club bulletin board is functioning, but we would like more people to take advantage of it. Please call anytime after 5:00 p.m. until 8:00 a.m. and all day Saturday and Sunday. Remember there are listings of the club mail available and also this is an excellent place to test your modem software, ask questions or download/upload software. The number is 517-355-6594 using 300/1200 baud and 8N1.
- 4) Don't forget to pay your dues if it has expired! You can tell by looking at your mailing label on each copy of ENERGY that is mailed to you or you can ask me at each meeting. At \$5.00 per person per year, I think it is quite a bargain. I would like to thank all our loyal members who continue to purchase our disks (blank, colored, DOM's) Because of you contributions, the club is able to keep the dues low and mail ENERGY to all paid members. Thanks again!
- 5) As always I welcome suggestions from the membership for ideas on future meetings or directions the club should be going in. Your contributions to ENERGY are welcome any time. Don't be shy. Each member has plenty to contribute. You may call me anytime at 517-321-3425 (voice) or leave a message on the club bulletin board.

New business:

October meeting: October 22nd, 1985 at 7:30 p.m.
Place: Room 116 of Ag Engineering
Attendance: ?
Door prize: Surprise
Winner: ?
Speaker: Frank Dolinar and Steve Melnyk
Topic: dBASE III vs. R:BASE 5000
(strengths and weaknesses of each)
DOM: Yes
EXCHANGE: October 1985 expected

- 1) UPCO is attempting to form a PCjr SIG. If you are interested please contact me anytime at 517-321-3425 (voice) or leave a message on the club bulletin board. This SIG will focus on the PCjr specifically but each member will still be a member of UPCO. The SIG will have the full resources of UPCO behind it.
- 2) The November 1985 meeting of UPCO will be based on investing. The use of your micro for collecting, storing, managing, and analyzing stock information will be discussed. This promises to be a very interesting meeting and could help you justify the purchase of your micro! The meeting will be November 24th in room 116 of Ag Eng. at 7:30 p.m.
- 3) The December 1985 meeting of UPCO will be based on the IBM LAN and will be held at Lansing Community College during the third week of December. Look here for further details next month or check the the bulletin board.
- 4) I am up and running on my new IBM AT but I am not 100 percent pleased with my hard disk situation. I mail ordered a 65MB hard drive from Express Systems and received a Fujitsu drive. The hardware is fine (30ms access, full height, etc.), but the software leaves something to be desired. The main problem is the fact that I can't use 65MB but instead have to settle for one of the following 1) 2 volumes of 32MB each (still not 65MB) but with a bug that will not tell me when each volume is full but instead spill over into the other volume thus resulting in a loss of data in the other volume 2) 3 20MB volumes (still not 65MB) but without the previously mentioned bug or 3) 1 32MB and 1 18 MB volume (still not 65MB). I am currently using method 3 but intend to switch to method 2 in a few days. I will let you know more in a future column. See you at the meeting!

UPCO

MARCH

Disk of the Month

PREPARATION

Before you run any of these but SETPRN and PR256 you should get BASICA on the same disk.

Archie!!

This tutorial teaches you how to avoid programming mistakes. To start it, type BASICA ARCHIE!!

PC-Professor

This tutorial helps you learn how program with BASIC. You will be able to try what you learn as you go. Just like a book, you can go forwards and backwards, and you can repeat the lesson you are on if experimenting has caused it to leave the screen. To start it, just type PROF.

B-SIMPLE

You learned of Archie's experiences the PC-Prof.; now let's program! And to make it easier, you now have B-SIMPLE. With it, you can break your ideas into manageable chunks, and tie them together with supervisory routines. You give each chunk a name to look up in your index later. By keeping the size of each chunk down to a screen, it stays simple. To start, type BASICA B-SIMPLE. The first time, select item 8 for instructions.

Miles Per Gallon

This program can figure your gas mileage and cost per mile. To start it, type BASICA MPG. Note that MPG.DAT is an example file; you can delete it as long as you enter new information before you want to want to display it.

Household Projects Priority List

Have you finished your chores? Did you remember to ...? Was something else more important? Now you can keep track of each little thing you have to do.

You can change priorities, and record your best guess of how long each will take and how much each will cost. You'll have a printout showing a running total of each. To start it up, type BASICA PROJECTS. Remove the projects on the PROJECTS.DAT file with the program, one at a time.

Financial Operating System

This personal finance system will help you keep track of checkbooks, cash expenses, savings, and investments. With 40 categories, you can see bar charts of each by month. It'll help you reconcile your bank statement.

Four pages of documentation are on the disk. To start the program, type BASICA FOS. First time, select item 9 to initialize your accounts.

Printer Setup and Monochrome Screen Graphics on your Epson Printer

These two programs make it easier to set up and use your printer. For some documentation, type COPY SETPRN.DOC LPT1:

UPCO

OCTOBER

Disk of the Month

MICRO ACCOUNTING SYSTEM

In 64K, this BASIC program can handle, 30 bank accounts and 200 budget accounts. It prints checks, a transaction register, budget analysis and average report, bank account summary, account distribution report, and selected account and tax code detail.

It has options to help you to reconcile a checkbook, and to begin a new year. The File Maintenance option lets you change bank account and budget information. Passwords are provided to help protect your data. Automatic payments can be set up.

This is a user-supported system that asks \$35 be sent to the author if you use it. It has 14 pages of documentation on the disk for you to print out AND READ!

SORTDEMO

Using a graphic board and screen, 9 different ways of sorting are shown in action. Data values are dots on the screen that move about as the file of 638 random numbers is sorted. A BASIC version of the compiled demo is included to show the exact instructions used. Times range from 212 down to 3 seconds on a PC.

EQUIP102

This utility checks the system and displays the equipment configuration, including device drivers and ROM release date.

CPOKEMAN

Like PacMan, but with a more complex maze. Runs on graphics or monochrome screen. 4 suits and a smiley face are the ghosts and your man. Has sound and 3 levels of difficulty. Good fun.

SPACEVAD

Looks A LOT like the original Space Invaders arcade game. Needs graphics board and screen to run.

GALAXY TREK

As Commander of the Starship Columbia, you must seek and destroy the Megaton warships before they conquer the United Federation of Planets. This text oriented game has readouts, charts, controls, sound and 5 levels of difficulty. You type TREKPIK to get instructions and start; TREKRUN.EXE is the actual program, and DATA.DAT is a data file that must be available. Use CAPS when entering menu options.

CHANGE VOLUME

Type CV VOL NAME to change the volume name of your floppy or hard disk. Imbedded spaces OK. Works even with DOS ver 1.1!

Get our Disk of the Month from the librarian on a colored disk. First come, first served on colors. Each disk is \$5.00, and prior issues can be ordered. We also sell blank black and colored disks reasonable.

GREATER LANSING COLOR COMPUTER USER'S GROUP



P.O. BOX 14114 - LANSING MI 48901

PRESIDENT'S COMMENTS

By Terry Feichtenbinder
CCUG President

We recently passed the first anniversary of our membership in the Michigan Computer Consortium (MC²). It may be helpful for the Greater Lansing Color Computer Users Group to look at the consortium and how we might get more value out of our membership.

One of the more visible activities of the consortium is the publication of ENERGY magazine. The CCUG section of ENERGY is reserved for us to communicate with our own members and to let others see how vital and interesting our users' group is. We could publish how-tos, programs, artwork, opinions and general information. Our membership has as many ideas as there are individuals. Any member can submit copy for publication. It's easy. Think of something and do it today!

The consortium has a history of organizing a yearly Computer Faire. These events have always been a good time for the exhibitors as well as the public. Prospective buyers have a need to see machines running the best software and to talk with knowledgeable people that are not trying to make a sale. The consortium needs help to keep the Computer Faire tradition alive.

I've mentioned two areas in which your input would be greatly appreciated. It doesn't take any special talent or a great deal of time. All that is required is that you want to make the consortium better and more responsive to the members' needs.

There are many more ways that MC² can serve it's member groups. Our strength is in numbers. A majority of the areas users' groups now share MC² membership. We need to flex our muscles, so to speak.

We could pull off some gigantic group purchases. We could become the conduit for closer relationships between users' groups. One of the ideas that excites me the most is community service. We have a great store of resources in our members. Some of us are deeply committed to the electronic community. What we need is the direction that could be provided by the Michigan Computer Consortium.

You've heard some of my ideas. Now I'd like to hear yours! CCUG members can give me a call (Terry Feichtenbinder 371-1594) and other group members can contact their consortium representatives.

The next CCUG meetings are October 5 and November 2 at 1:00 PM in the East Lansing Public Library. No promises, but we may have a guest speaker in October. Let's all bring a word processor or text editor program to the November meeting. Guests are always welcome at our meetings. Members- don't forget to bring your hardware.



PERSON TO PERSON

FOR SALE: Radio Shack Model 100 Portable, 24K, Modem Cable, Briefcase, Cassette Unit, Manuals. \$300. Call Jim 349-2340 days.



Office: (517) 349-7455
Res: (517) 349-6676

ALISON HAZZARD

ALISON INC

Placement of Computer Professionals
1601 Wrennah Dr., Okemos, MI 48864

CASTLE COMMUNICATIONS

BARRY GRIFFIN
Owner/Manager

Office: 371-4321 • Home: 882-2087
10-7 Weekdays • 10-6 Saturdays

1716 E. Michigan Avenue • Lansing, Michigan 48912
Business and Personal Computers Sales and Service

Apple Lug

Apple LUG News

October, 1985

APPLE LUG NEWS

Apple LUG Officers

<i>President:</i> Gary G. Martin	822 W. Willoughby Rd., Lansing	394-0115
<i>Vice-President:</i> Jeff Howell	5120 Okemos Rd., E. Lansing	349-3831
<i>Treasurer:</i> Bruce McConnell	13805 Schavey Rd., DeWitt	669-5642
<i>Secretary:</i> Rita Berens	214 N. Fairview, Lansing	485-7513

PROGRAM FOR NOVEMBER

Apple L.U.G. members and other readers of *ENERGY*, it is time again for one of the most spectacular events in the L.U.G. calendar, the ANNUAL AUCTION. Not only is this an opportunity for those who have "out-grown" a piece of hard- or soft- ware to transform it into hard cold cash, but equally attractive is the prospect of obtaining a rare specimen for a fraction of its original value. The Auction will be held November 16th. Registration will begin at 9:00 a.m. on the MSU campus in the auditorium of South Kedzie Hall, just across the garden from where our regular meetings are held. Follow the signs in the building. If you can't find the building, see the map on the next page.

Last years AUCTION was tremendously successful, and we anticipate this year's will be even better. In contrast to years past, we are inviting *ALL* computer users and dealers to participate as either buyers or sellers in the auction. Consequently, we are not restricting the auction to Apple or Apple compatible products. However, the following rules must be followed in order to place an item on the auction block.

1. ALL SOFTWARE offered must be ORIGINAL COPIES with ORIGINAL DOCUMENTATION. The Apple L.U.G. will not auction backup copies and Xeroxed documentation. The reason for this is obvious.

2. ALL HARDWARE to be sold should work or should be noted as having specific

problems. Please do not bring hardware that does not work, hoping that the person that is going to buy it won't find out until he gets the item home;

3. ALL HARDWARE AND SOFTWARE is sold on a "as is" basis. The Apple L.U.G. accepts no responsibility for the condition of the software and/or hardware. However, we will gladly supply buyers with the address and phone number of the person that brought the software and/or hardware to the auction. It will be up to you to settle any differences that may arise.

In order to keep track of items, buyers, and sellers, the following format has been established for the AUCTION:

1. BUYERS will be required to obtain a number PRIOR to bidding on an item. Therefore, it's suggested that everyone obtain a number as soon as they arrive at the auction. YOU DO NOT HAVE TO BUY ANYTHING IF YOU OBTAIN A NUMBER. You may obtain a number at the auction by registering at the buyers table.

2. SELLERS must register at the "SELLERS TABLE". Registering consists of: Giving identification, including Name, Address and Phone Number; And, telling the person at the table how many items you wish to sell. Each item you sell must receive a number. This number, or sequence of numbers, will be given to you at this table (DO NOT MAKE UP YOUR OWN). After receiving the numbers, it will be your responsibility to place these numbers

Apple Lug

Apple LUG News

October, 1985

on your items (sticky back labels will be provided for you).

The *procedures* for the AUCTION will be as follows:

1. Each item will be placed on tables (by Sellers) for viewing (by potential Buyers) before the AUCTION starts. The "BUYERS TABLE" and the "SELLERS TABLE" will be open shortly after 9:00 a.m. The actual AUCTION will start around 10:00 to 10:30 depending upon the number of items, buyers, and sellers.

2. Once the items have been viewed by prospective bidders, the tables and their contents will be removed to the front stage of the auditorium and the auctioneer will begin presenting the items in random sequence.

3. As each item is sold, it will be handed directly to the buyer. If the seller of the item is not satisfied with the final high bid, he/she may "no sale" the item at this time, stating if he/she choses what minimum bid would be required. Sellers pay a 10% commission on all items offered; 10% of the highest bid if the item is "no-saled". The number of the item and the number of the buyer will be noted. This allows us to keep track of all purchases. At this time the buyer is responsible for the item and will be charged accordingly.

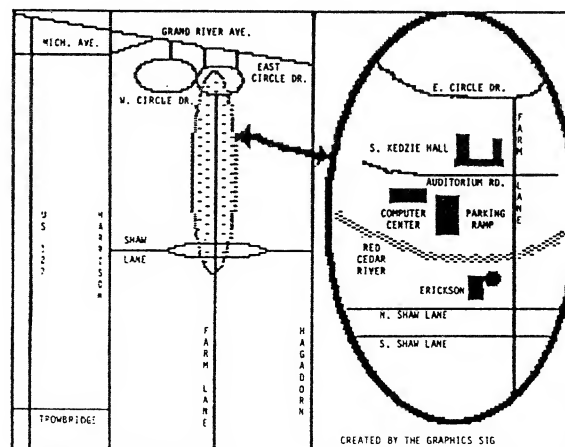
4. Before a buyer leaves the AUCTION, he must pay for the items he purchased. This will be done at the "BUYERS TABLE". The procedure is simple. The buyer will show his number to the people behind the table and they will sort through all sales sheets noting purchases made under his number. All purchases will be totaled and the buyer will be required to make payment at that time.

5. After the AUCTION is OVER, the SELLERS should claim all items not sold. It will be their responsibility to look after these items. The SELLERS can also settle up at the "SELLERS TABLE". The people working at the

table will sort through all the items purchased and registered to the seller. After this is done, a total will be made and the club will take it's share and make payment to the SELLER. The club receives a 10% commision on all sold and "no-sale" items. Items which do not receive bids are not liable for commision charges.

If we have your cooperation, we should have a sale that runs smoothly. WE NEED PEOPLE TO HELP WITH THIS SALE. If you wish to help out, please come to the AUCTION and ask to help. Your support will be greatly appreciated. This AUCTION is a service that is not offered, to my knowledge, by any other club. Please help us to help you.

Thank you... Apple L.U.G.



All Makes And Systems — Software & Peripherals
Forms, Ribbons, Disks & Accessories

COMPUTER CONSIGNMENTS

PREVIOUSLY OWNED COMPUTER SYSTEMS
RESALE STORE
HOME/BUSINESS

2820 SOUTH CEDAR ST.
SUITE 3
LANSING, MICHIGAN 48910
517-394-4408

R.A. McCARRICK
OWNER
517-393-0029

Apple Lug

Apple LUG News

October, 1985

INTERNATIONAL APPLE CORE DOM # 49 FILE CABINET from the Apple Corps of Dallas

(THIS IS L.U.G. DISK #183)

This disk was submitted by Ed Aymond of the Apple Corps of Dallas, to serve as an improvement on the IAC DOM #44.

Two versions of the File Cabinet program are included on this disk. The first, broken into 5 program segments (called MAIN, REPORT, CHANGE, SORT and FILES) make use of the "CHAIN" facility of ProDOS, and thereby allow for more memory for data. "MAIN" is the initial entry point for this version of File Cabinet. The other version, called "FILECABINET" is entirely resident in memory at one time, with the result that fewer records can be entered into a database. (Michael Moore, Ed Aymond and Bab Matzinger had a hand in both of these versions.)

"FILECABINET.STUFFER" is a file update program which permits mass changes to records within specified headers in the FILECABINET database. "FILECABINET.INITIAL" may be used to set up the record structure for use within the FILECABINET program. "FILECABINET.MOD" permits the addition of headers to existing File Cabinet databases. Header descriptions can also be changed to revised descriptions. "FILECABINET.INSTR" reviews the several major versions of File Cabinet in DOS 3.3 and ProDOS.

A textfile of instructions entitled "FILECAB.INSTRUC" is included from the earlier ProDOS version of File Cabinet.

Finally, the 'TYPE' command has been included on this disk. It allows you to list a text file on the screen. (If you don't have a word processing program for use with ProDOS, then this will at least allow you to see your textfiles. And if you don't have a simple text editor for ProDOS, get a copy of "Freewriter" on IAC DOM # 43 from you local Apple user group.)

Benchboard BBS online ONE YEAR!
Benchware Electronics in business ONE YEAR!

Popular CoCo Software in STOCK:
FREE diskette with ANCESTORS 32K CoCo Genealogy program

General Computer Products:
SS/DD and DS/DD 5 1/4" diskettes on SALE
150 nsec 64K DRAMS - \$1.70 each
120 or 150 nsec 256K DRAMS

●●●●●●●● write for sales flyer to: ●●●●●●●●

Benchware Electronics
P.O. Box 278
Holt, Michigan 48842

OR TELEPHONE Benchboard BBS (8/N/1) 394-2447

Please include 4 % MI sales tax
Sales help support BBS expenses

PRO VIDEO

R
O
V
I
D
E
O

*Computers and Peripherals
Accessories
Software*

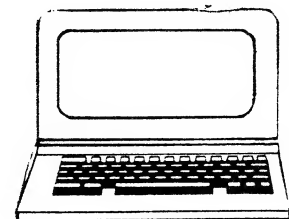
* * * * *

OCTOBER SPECIAL:

\$10.00 off SG-10 or SG-10C printers
by Star Micronics. (Bring copy of
this ad with you).

Bulk disks - at savings
Paper supplies - at savings

* * * * *



PRO VIDEO
MERIDIAN MALL
(NEXT TO MERIDIAN WEST THEATERS)
OKEMOS, MICHIGAN 48864
(517) 349-7353

ANOTHER TRIVIA GAME

IAC Disk # 50

(THIS IS L.U.G. DISK #184)

With the trivia craze sweeping the land, and the continuing need for good public domain software, it was just a matter of time before someone came up with a generic trivia game. In this case, it was Rudy Guy, the President of the Erie Apple Crunchers.

After the startup screen, you are presented with a choice of reading the instructions, using the question editor to author your own trivia questions, or running the game. It is recommended that you start with the instructions.

Up to four people or teams can play at once. You have 3 minutes to answer a question- an incomplete answer is interpreted as no answer. Each correct answer is worth 1 point, and there is no penalty for incorrect answers at this stage of the game. However, bonus questions do exist, and are worth 2 points if answered correctly. Or minus 2 points if not! The winner is the first person to reach the predetermined target score.

The program stores up to 200 questions. The Question Editor will allow you to create your own question banks. You can create special disks of questions for school children (eg. math, history, geography).

Rudy wrote this program to run on an Apple //e or //c. It will also run on an older Apple which is capable of displaying lower case. It is written under ProDOS, and thus requires a //e or //c, or an older Apple II with a 16K RAM card in Slot #0. The program can be easily converted to the DOS 3.3 environment by means of the "CONVERT" program on the ProDOS Users' Disk, or with the Apple //c System Utilities Disk. Also on the disk is an additional textfile entitled "TRIVIA.DOCUMENT". It contains more thorough information, and can be read using the "READ.DOCUMENT" program on the disk. Just Quit to BASIC and RUN READ.DOCUMENT.

If you want to see a disk that's well done, have a look at this one.

APPLE L.U.G. WELCOMES YOU!

"WHO"

Apple L.U.G. (*Lansing Users Group*) is an organization of Apple users in the mid-Michigan area. It was organized in early 1981 to provide a forum for the exchange of information and a means of helping new users to better understand and use their equipment. Apple L.U.G. extends a cordial welcome to anyone interested in learning more about Apple microcomputers software, hardware, etc.

"WHAT"

Our meetings are informal and consist of thirty minutes of announcements, comments, news, questions and answers, etc. This is followed by a program lasting about an hour. Program topics include demonstrations and reviews of hardware or software followed by questions and answers. Visitors are always welcome.

"WHEN"

Apple L.U.G. meetings are held at 9:30 a.m. on the third Saturday of each month.

"WHERE"

Apple L.U.G. usually meets in Room 102, South Kedzie Hall, Michigan State University, East Lansing. It is located at the northwest corner of the intersection of Farm Lane and Auditorium Road.

"WHAT ELSE"

1. Disk Library - Apple L.U.G. has a library of over 185 disks containing well over 2,000 public domain software programs, which are offered for sale to members at reduced rates. Disks are purchased from the International Apple Core, other Apple user groups and other

organizations. The Disk Library contains a variety of useful programs for computer hobbyists, for students, for business and recreational applications.

2. Newsletter - The Apple L.U.G. News is no longer published independently, but has been incorporated into **ENERGY** magazine, which appears monthly, and contains news from the five member user groups which make up the Michigan Computer Consortium. The aim is to provide Apple L.U.G. members with the best possible guide to *all* computer related activities within the local area, in addition to monthly program announcements.
3. Tutorials - Experienced Apple users within the club conduct tutorials on topics of special interest to the membership. Members pay reduced rates.
4. Special Interest Groups (SIG) - Members with specialized problems or interests are encouraged to join others in SIG's (e.g. Communications, Education, Graphics) which meet independently of the monthly meeting.

"HOW MUCH"

Membership dues are \$12 for the calendar year or \$1 per month prorated. Make checks payable to Apple L.U.G. and mail to:

Apple L.U.G.
P. O. Box 27144
Lansing MI 48909



SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE S
ALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SA
LE SALE SALE SALE SALE SALE SALE SALE SALE SALE SAL
E SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE

PRINTERS

MORROW MP200 (demo) RS-232 letter quality 18cps	\$449.00
Star PowerType parallel or RS-232 letter quality 18cps	\$369.00
Star SR-15 parallel 200 cps 15 in. carriage nlq print	\$678.00
Star SG-10 parallel 120 cps nlq print IBM mode	\$249.00

cables extra

COMPUTER

MORROW MD2 CP/M 2.2 microcomputer with 2 ssdd 5 1/4 drives MDT 20 terminal and bundled software.
Ideal inexpensive word processor.

\$50.00 off above price when purchased with any of the above printers, cable included (\$25.00 value)

MISCELLANEOUS

Some Timex/Sinclair 1000 cassettes, games, etc.	\$2.50 ea
Timex/Sinclair 1000 hardware memory, modems, etc.	60% off list

Kruse Company
microcomputer division
826 West Saginaw Street
Lansing
482 0643

hours M-F 4:30 to 8:30, Sat 10am to 6pm, Sun 1 to 3pm

AT&T Personal Computer 6300



AVAILABLE NOW

AT

DEMCO CONTROL SYSTEMS
4500 N. Grand River
Lansing, MI 48906
Stop out!
or call 517 321-1700



ENERGY
The Michigan Computer Consortium Magazine
Dennis C. Cullinan, Editor
Box 1302
East Lansing MI 48823
ADDRESS CORRECTION REQUESTED

BULK RATE
U.S. POSTAGE
PAID
EAST LANSING MI 48823
PERMIT 181



IMPORTANT!!

**CARNIVAL CHAOS
AUCTION**

**OCTOBER
MEETING**

**BRING YOUR ITEMS
AND YOUR MONEY**